Project Introduction

The goal of this proposed research is to investigate and develop a workflow based tool, the Software Developers Assistant, to facilitate the collaboration between different participants of multiple activities within a Software Development Process. Distributed development teams are becoming the norm for today?s software projects. These distributed teams are faced with the challenge of keeping software projects on track and keeping all involved developers using a consistent and efficient process. Workflow tools have been used for several years to support activities of distributed organizations such as the International Space Station Program. Workflow tools are efficient at automating very constrained and tightly controlled processes such as Change Requests processes. A Software Development Process, though, requires a more informal type of process automation allowing the project manager more control rather than enforcing tight rules through the workflow engine. Issues to be addressed during this project include researching the effects of multiple factors involved in the successful insertion of this technology within NASA organizations. Engine characteristics required to give flexibility to the software development team will be researched. Multiple processes will be captured within the workflow tool to evaluate different needs of process participants, such as Project Management, Requirements, Design, Implementation, and Testing.

Primary U.S. Work Locations and Key Partners

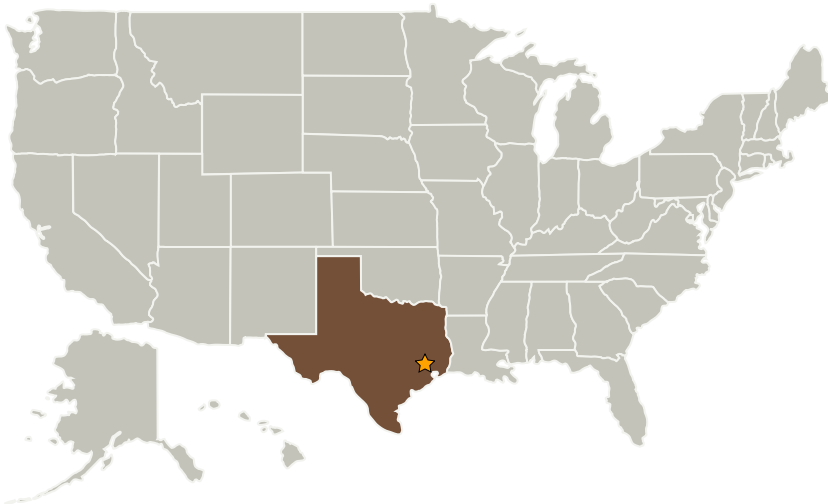Workflow Based Software Development Environment, Phase I

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Organizations Performing Work	Role	Type	Location
⭐Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Tietronix Software, Inc.	Supporting Organization	Industry Small Disadvantaged Business (SDB)	Houston, Texas

Primary U.S. Work Locations
Texas

Project Management

Program Director:
Jason L Kessler

Program Manager:
Carlos Torrez

Principal Investigator:
Victor W Tang

Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  └ TX11.2 Modeling
      └ TX11.2.3 Human-System Performance Modeling

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